

Figure 1. Two-hybrid system

X = Fusion protein

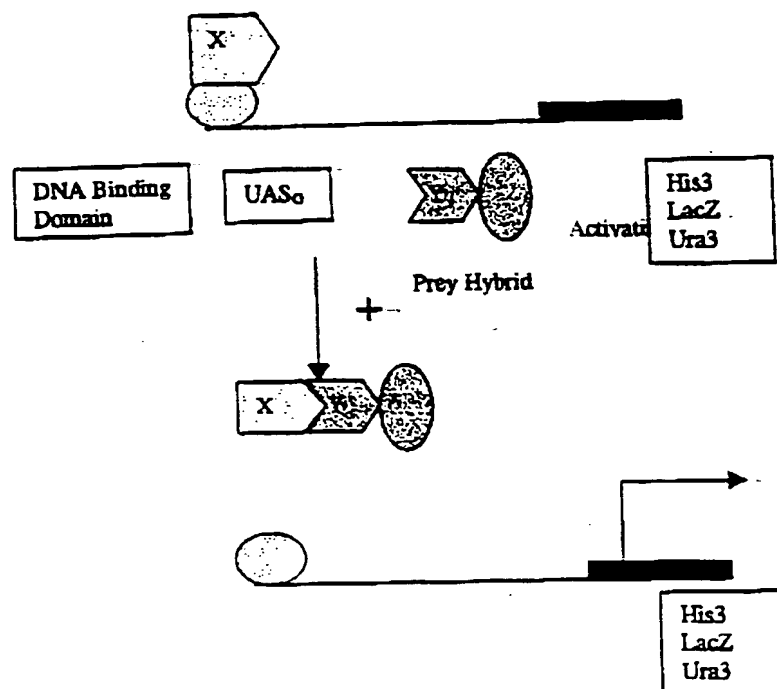


Figure 2 A schematic representation of the Modified three-hybrid system (chemicalhybrid system).

X = High specificity receptor for irreversible binding of ligand (A)

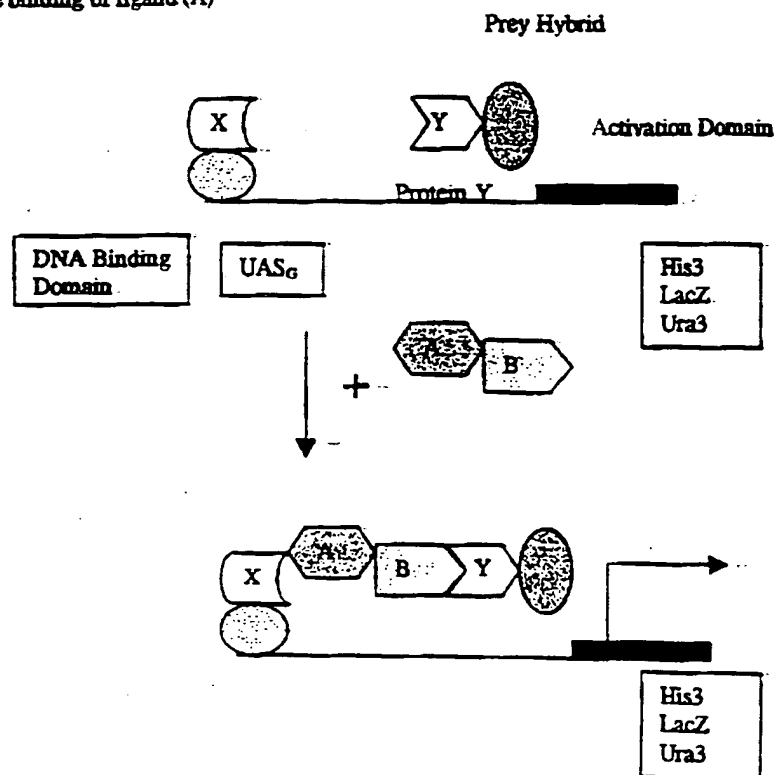
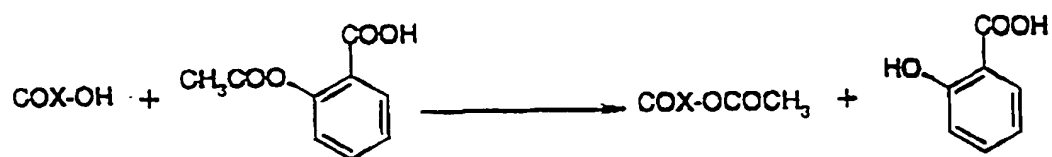
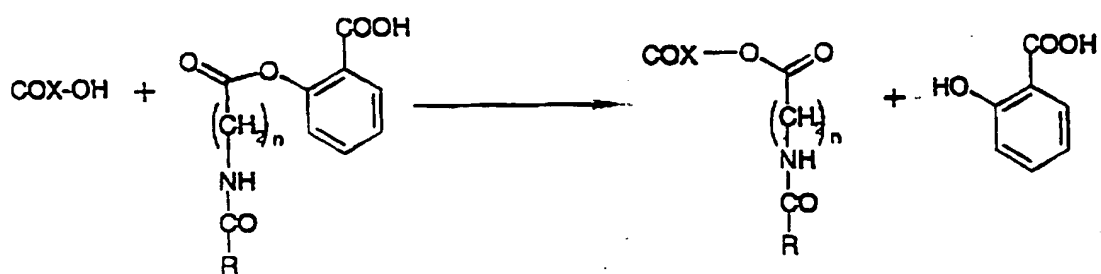


Figure 3: Affinity Labeling Agents

Cox-Aspirin Mechanism



Example of covalent bonding of ligand to the target (Cox-Aspirin mechanism)

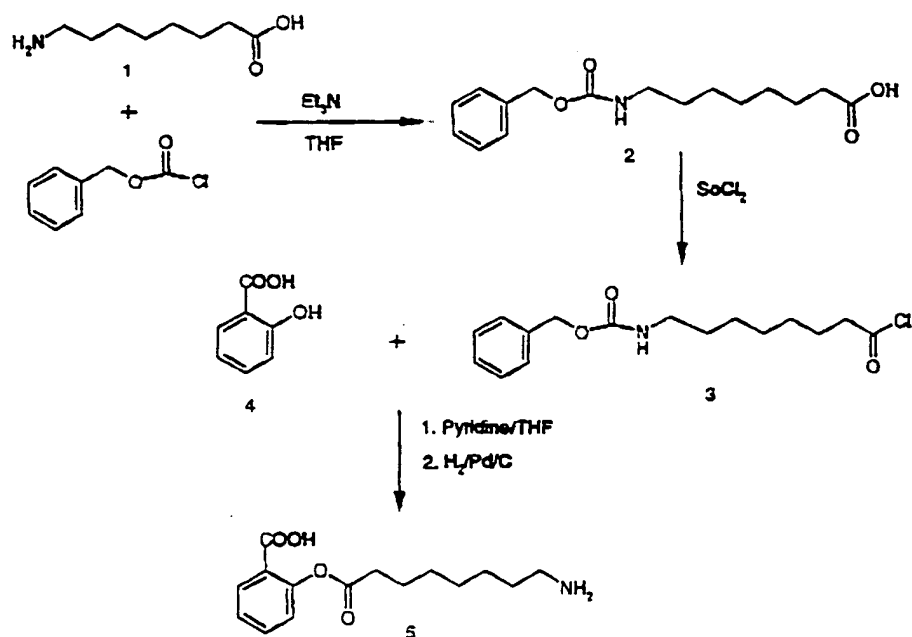


R = Dexamethasone; FK-506 or combinatorial compounds

n = 0-20

Figure 4: Affinity Labeling Agents

Synthesis of aminoalkyl salicylate



Coupling of aminoalkyl salicylate to dexamethasone

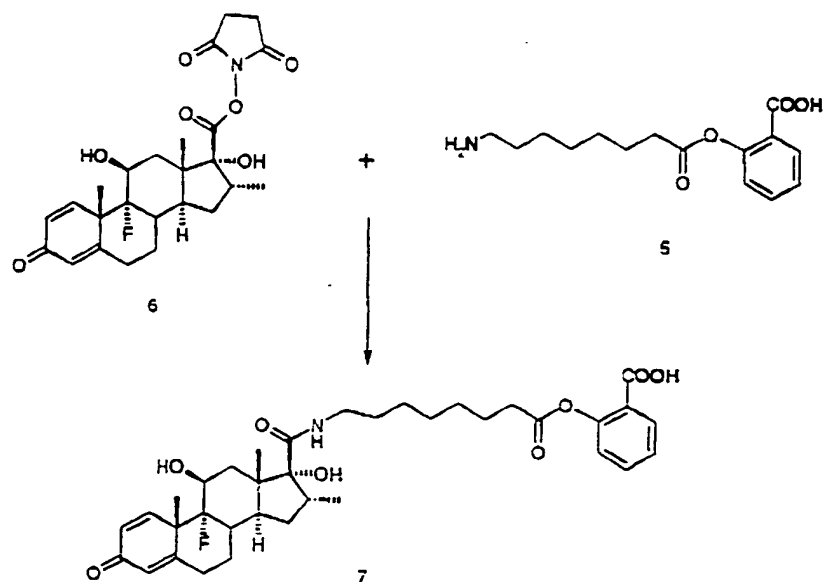
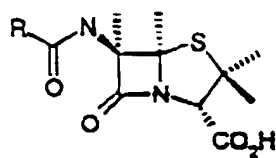


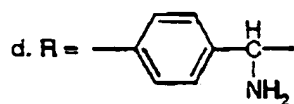
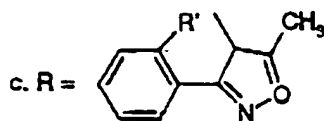
Figure 5: Affinity Labeling Agents

5a. Penicillins

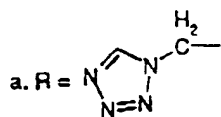
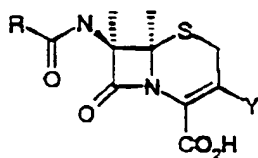


a. $R = \text{PhCH}_2-$

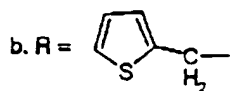
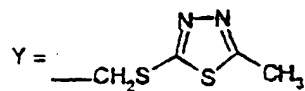
b. $R = \text{PhOCH}_2-$



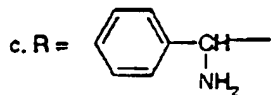
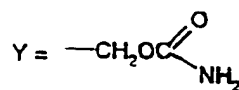
5b. Cephalosporins/cephamycins



$X = \text{H}$

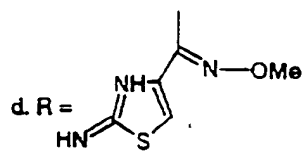


$X = \text{OCH}_3$



$X = \text{H}$

$Y = \text{Cl}$



$X = \text{H}$

$Y = \text{H}$

Figure 6: Mechanism based-inhibitors

Figure 6a. Vigabatrin

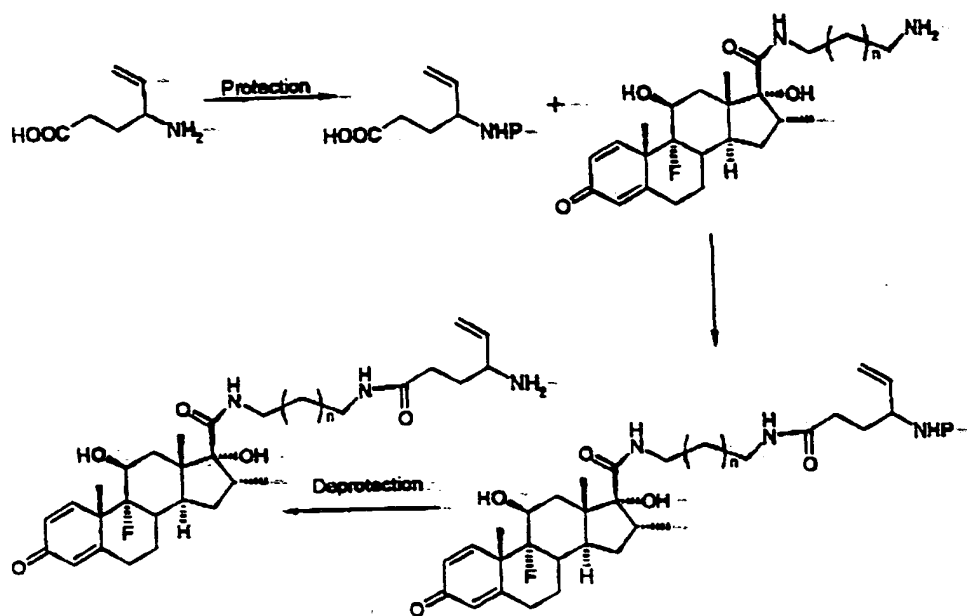


Figure 6b. Eflornithine

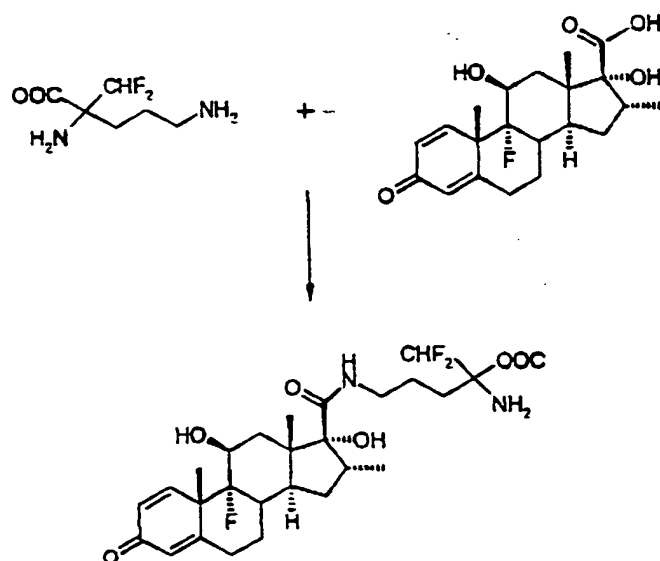
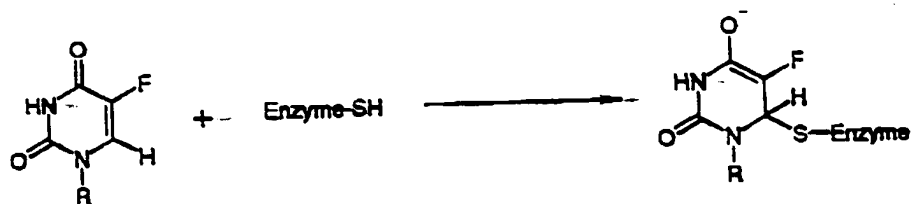
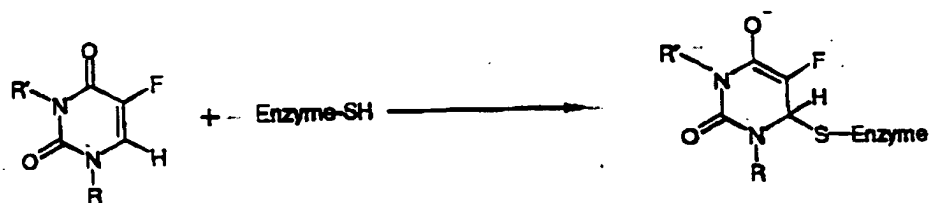


Figure 6c Fluorouracil



Example of covalent bonding of ligand to the target (mechanism-based inhibitor)



R' = dexamethasone, FK-506 or combinatorial compounds

Figure 7: Covalent labeling of recombinant protein in living cells with fluorescein analogs

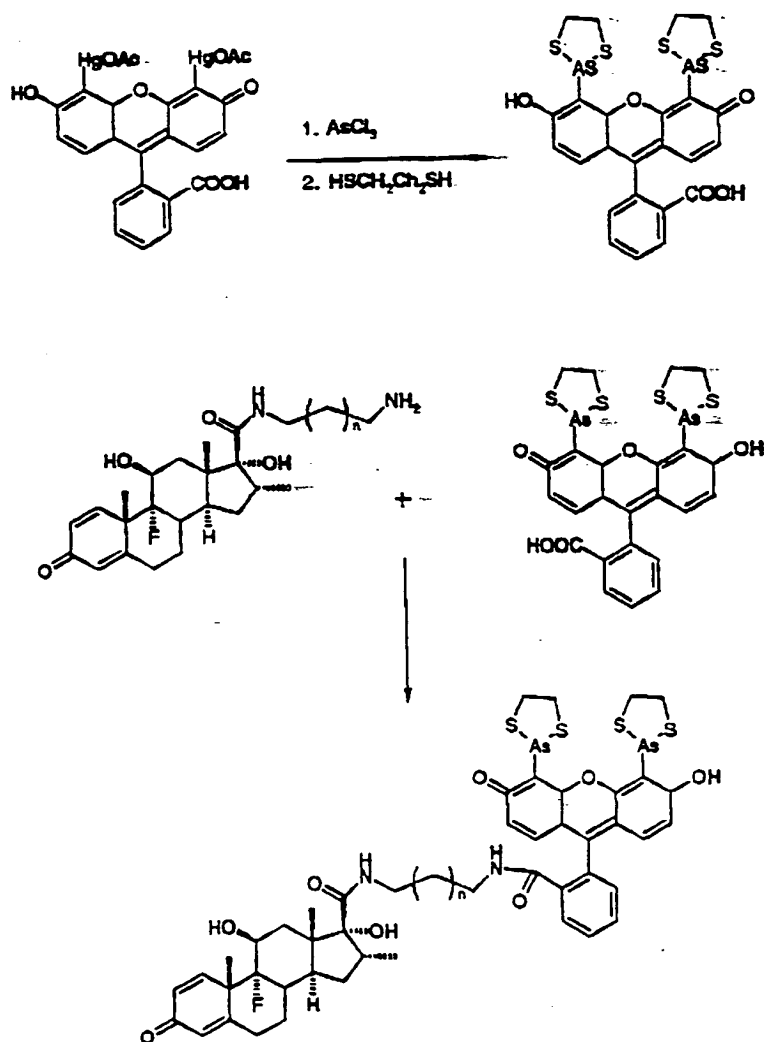
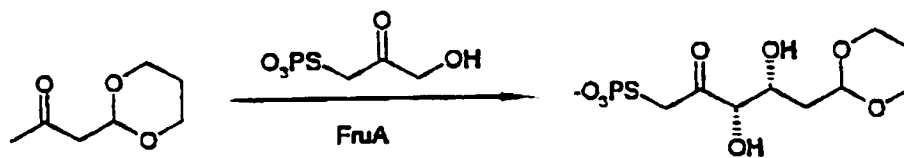
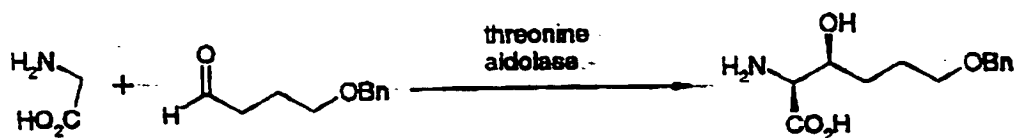


Figure 8: Biocatalyses: enzyme mediated c-c bond formation



Fru A = fructose 1,6-bisphosphate aldolase